

Title (en)
CONTROL DEVICE FOR VEHICLE

Title (de)
STEUERVORRICHTUNG FÜR FAHRZEUGE

Title (fr)
DISPOSITIF DE CONTRÔLE POUR VÉHICULE

Publication
EP 1775188 B1 20110504 (EN)

Application
EP 05768445 A 20050804

Priority

- JP 2005014297 W 20050804
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Abstract (en)
[origin: EP1775188A1] A control device for a vehicle is equipped with a vehicle model motion means 94 for determining a motion of a vehicle (a vehicle model motion) on a vehicle model 72 expressing the dynamic characteristics of a vehicle 1 on the basis of drive manipulated variables, such as an angle of steering by a driver, and a state amount error reaction control means 96 for determining control inputs to an actuator control means 92 of the actual vehicle 1 (a means for manipulating an actuator device 3 of an actual automobile 70) and the vehicle model motion determining means 94 according to a feedback law on the basis of a difference between a state amount of a vehicle model motion (model state amounts, such as a position or a posture of a vehicle) and a state amount of a motion of the actual vehicle 1 (a state amount error). Based on a state amount error, not only a motion of an actual vehicle but also a vehicle model motion is manipulated, thereby enhancing robustness against disturbance factors or their changes while conducting actuator operation control that is suited to a behavior of the actual vehicle as much as possible.

IPC 8 full level

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B60W 40/064 (2013.01 - EP US); **B60W 2050/0028** (2013.01 - EP US)

Cited by

EP2394876A4; EP1967433A4; EP1967432A4; EP2448806A4; EP2019013A3; EP1950114A4; US9751557B2; US8783390B2; WO2010079093A1;
WO2009109279A1; WO2009077264A1; WO2007074716A1; US8024091B2; WO2022194326A1; WO2007074717A1; US8086383B2;
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JP 4143104 B2 20080903; JP WO2006013922 A1 20080501; KR 101172670 B1 20120808; KR 20070043702 A 20070425;
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